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WATER: ESSENTIAL ELEMENT OF UNITED STATES SECURITY POLICY IN THE
MIDDLE EAST

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Block 3: The Geostrategic Context

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WATER: ESSENTIAL ELEMENT OF UNITED STATES SECURITY POLICY IN THE
MIDDLE EAST

*good, clear
summary*

I. SUMMARY:

Water has remained a concern and a source of conflict in the Middle East since the dawn of civilization. Traditional sources of water have been taxed by the growth of populations in the area and their accompanying problems of pollution, waste, improper operation of water facilities, and poor cooperation between countries sharing common but limited water resources. With a population of nearly 170 million and growth rates between 1.6 and 3.8 percent (World-wide rate is 1.7 percent), the region has already experienced localized water shortages. Those countries bordering on the Nile, Jordan and the Tigris/Euphrates Rivers (and associated aquifers) are mutually dependent on limited renewable water sources that will be increasingly insufficient for their populations in the years ahead. An area of intense and violent conflict, cooperation to resolve regional problems in the past have proven nearly impossible.

The role of the United States in the Middle East in the years ahead will require leadership in the resolution of major water issues if any stability in the region is to exist. A national policy that promotes the importance of renewable water programs to the area and its people must be a keystone of United States security policy. The complexity of the problem requires that the nations effected cooperate on the development of solutions. The United States can assist through technical

assistance; diplomatic efforts to encourage cooperation and sharing of information between nations; encourage greater management and conservation efforts; assist in the formulation of long range planning and research; and encourage the necessary investment by the private sector in the absence of government financial assistance. Failure to address the complexities of the water resource problem will not only limit the effectiveness of US foreign policy programs but will continue to fuel the fires of conflict in the Middle East.

II. ISSUE DEFINITION:

The United States has attempted to resolve conflicts in the Middle East for the last half century. One issue underlying the long-term settlement of disputes has been the allocation and protection of the limited water resources in the region. Many of the region's conflicts have been the direct result of limited water resources; often having been obscured by more emotional issues such as religion, oil reserves, Palestinian issues, territorial claims or internal disputes. United States security policy in the Middle East region must place a greater emphasis on the protection of existing water resources, promotion and assistance in water technology and long range water planning. Further, it must serve to encourage and promote greater cooperation between nations in the area to ensure lasting stability and peace.

III. BACKGROUND AND ANALYSIS:

The United States has had a fairly consistent policy in the

Middle East concerning Israel, but has varied considerably for other nations over the same period of time. Absent from the regional security policy of the area has been a recognition of US interests and coordinated policies concerning water resources and their uses. Due to the region's runaway population growth and increasing water shortages, the already conflict filled area has the potential to erupt in the near future over the basic necessity of life...water. Failure to address the problem now will certainly acerbate the region's instability.

The Middle East has three distinct major water resource regions of potential conflict. The Jordan River, The Nile River, and the Tigris/Euphrates River basin.

The Jordan River: The most potential trouble spot due to the shared water course border of Israel and Jordan and Jordan and Syria along the banks of its tributary, the Yarmuk. With an annual discharge of 1,280 million cubic meters (MCM), it is already insufficient to meet the needs of its users. The limited rainfall and underground supplies (both replaceable and geological) can not meet the demand without seriously jeopardizing future use (Over drawing of the underground sources causes seawater to enter the water table, denying its future use as a fresh water source).

Israel's Arab neighbors have seen its territorial expansion for defensible borders since 1948 as an excuse to gain additional water sources in the West Bank, Golan Heights, Lebanon (the prized Litani River) and underground sources in the Negev. Israeli administration of the water in the Occupied Territories has greatly favored the Israeli population on a per capita basis

and blocked further Arab well drilling in the territories. Water intensive (75% total water use) Israeli agricultural projects have been promoted rather than less water demanding industries. By 1995 all renewable water resources will be fully developed. By 2000, Israel will require almost 1 1/2 times its current water use. Coastal wells have already been contaminated by overpumping. Jordan will face a shortage of nearly one quarter of its present renewable resources.

Nile River: Egypt's approximately 58 million people are almost solely dependent upon the Nile. With her population exploding at an annual rate of 2.6%, Egypt demands over 73 BCM of water annually. Subject to prolonged droughts in the headwaters, the Nile in recent years has experienced low water levels in the Aswan Dam reservoir which have cut water flow and electrical generating capacity. Water quality has suffered downstream due to increased industrial pollution, untreated waste and pesticide runoff. Egypt will soon be experiencing a serious water shortfall and electrical outages if current trends continue.

Tigris/Euphrates River Basin: Both rivers originate in Turkey and enter the Persian Gulf through Iraq. Syria lies astride the Euphrates before the river enters Iraq. The river basins have a combined area of nearly 430,000 square miles. Tributaries from Iran add to the flow of the Tigris. The ambitious Southeast Anatolia Project (13 hydroelectric and irrigation projects) of Turkey on the upper reaches of both rivers continue to decrease the quantities available downstream. Additional problems are already being experienced in the quality of water due to fertilizer and pesticide run off, untreated waste

and industrial pollution. Worst effected is Iraq. It has already experienced shortages due to Syrian irrigation projects (War almost resulted in 1975). Current projections predict a 2 BCM shortage in Iraq in the near future if upstream projects are completed. Both Syria and Iraq already truck water to some cities to meet present demands.

In sum, water in the Middle East is an underlying issue in security and foreign relations that effects each of the countries of the region. Territory must be controlled or occupied to insure the continued supply or access to existing supplies. The security of nations can not be assured if they are dependent on others for their vital supplies of water. Totally dependent on the forces of nature to replenish existing renewable sources, supplies vary between years and multiply the effects of other social, economic and political problems. The complexity of the problems and the variables of cause and effect on ecological systems tends to cause water problems to be dealt with in unilateral or bilateral arrangements, often with short term, internally oriented policies. Centralized long term planning of a multinational organization is absent.

The demographics of the region are cause for great concern. With a birth rate of about 3.1% per year, it is almost 2.5 times higher than economic and natural resources of the area can support. With 50 percent of the population less than 30 years of age, the majority of the population is in the lower half of the economic social order. Governments are severely strained to provide sufficient housing, health care, education and employment. If development of necessary facilities and programs

can not keep up with demand, social and political unrest is sure to result. Additional strain on resources is caused by national programs and industries designed to raise the international standing of the country are often highly inefficient, economically infeasible or purely built for the glorification of the ruling party.

In countries of great oil resources, the absence of water resources can be lessened by technological investment, management procedures and extensive reuse of water. Poorer nations are less fortunate and are often unable to meet their growing populations' requirements without outside assistance, thereby leading to dependence and putting their national security at risk. Shared water sources and drawing off of underground aquifers not only leads to potential conflict but also to irreversible damage that puts entire societies and nations at risk for the future.

IV. RECOMMENDATIONS:

United States security policy in the Middle East will not be based solely on water resource issues, but water must be evaluated in relationship to all policies and programs concerning any effected nations in the region. Solution of the allocation and use of water resources is not likely in the very near future... and if so, it will require continual review and adjustment. To facilitate and assist the nations of the region and to promote United States interests the following is required in our policy:

--**Technical Assistance:** The United States has demonstrated exceptional ability and leadership in the technical aspects of

water conservation and technology development. This can provide near term solutions and recognizable gains. Expansion of solar energy processes, salt-tolerant crop (halophyte) research, waste water treatment and utilization, and water resource management techniques are only some of the areas for US leadership initiatives.

--Diplomatic Efforts: The United States can not directly solve the water problems, but diplomatic efforts can assist in the encouragement of the regional powers to work together. Opportunities to serve as an intermediary when necessary should be sought. Encouragement will be needed to develop regional commissions and organizations to coordinate efforts and programs across national boundaries. Long-term and slow by nature, these efforts are necessary to promote trust, information exchange and mutual cooperation to provide long term solutions of great complexity and resource allocation.

--Long-Range Planning and Research: The United States has the institutions and expertise to promote forward looking planning and research that would be of benefit not only to the Middle East, but also for our own arid Southwest. Additional gains could be realized through the mutual cooperation and relationships formed with participating regional nations and organizations.

--Conservation and Management Efficiency: Efforts to promote and encourage increased conservation measures and greater efficiency in the management of water resources must be promoted to protect renewable water systems. Failure could cause irreversible damage. Benefits would not only save resources in

the short term, but provide lasting improvements to existing systems and efficiency in new ones. Closer to home, greater effort should be made to coordinate various agencies and programs within the federal bureaucracy to maximize effectiveness of assistance efforts in the region. Realization of this initiative would be best served through a central coordinating office for water programs.

--Finance and Investment: Current budget limitations makes US direct assistance unlikely. Efforts to encourage private investment and financial assistance in the region must be encouraged. Recent success in forming the alliance against Iraq should be a basis to foster continued cooperation and burden sharing for projects of mutual concern and security.

The time for a review of United States National Security Policy in the Middle East is now upon us. The above proposals will provide the means to resolve a growing problem that will only get worse if ignored and will surely lead to future instability and conflict in the region. "Water, the greatest problem in the Middle East today" as noted by a high Israeli official recently could very well be the cause of the next war in the Middle East if not addressed now.

